**Exercise 1: Drawing lesson plan**
After giving the first part of the presentation (“lecture”) where evolution through adaptation and electric fish are introduced, the students will engage in an activity to improve motor skills, mentally re engage students after the “lecture”, and allow students to demonstrate comprehension of the “lecture”. In this activity students will be presented with a “connect-the-dots-esque” outline of a mormyrid weakly electric fish. The students will connect the dots, identify the location of the electric producing organ, draw objects the electric fish will encounter in the environment, and then be asked to draw the electric field that the fish can sense.

Required materials: Pencils/pens, coloring materials, , mormyrid outline (1 per student), powerpoint slides and display.

1. Distribute “connect-the-dots” outline to each student.
2. Instruct students to fill in the lines. The black lines will complete the fish's profile and the red lines outline the region where the electric organ is located (called the *caudal peduncle*).
3. Ask students to draw objects in the fish’s environment that it may encounter naturally (prey, predators, logs, aquatic plants *etc*…). Display a “reminder” slide if you think this is necessary for your students. The “reminder” slide has some examples of objects the fish will encounter that students can copy.
*Reminder slides are located after the “lecture” slides*.
4. Have the students add circles to represent the electric field the fish is producing. There is a “reminder” slide for this portion as well.
*Students should bend electric fields near the objects they drew (toward or away is fine for their level of understanding)
Reminder slides are located after the “lecture” slides*.
5. Display the slide that has two different types of electric discharges (bi- and tri-phasic). Have students select one or the other and draw in the box under their mormyrid.
6. Students can then have a section of time set aside to color in their mormyrid and environment.

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1. If both presentations and exercises are to be done in one day, teachers can prepare the powerpoint and materials for Exercise 2 while the students color.
2. If the unit is to be separated into multiple sessions, save the students colored mormyrids, clean up, and transition to the next part of your schedule.